Solar Eclipse Slides (Again) Slated As Entertainment- For Meeting

By Frank Craw, WOHWH

This is about the third time that the showing of the slides of the solar eclipse, taken during a trip to Mexico by Maury Wunderlich, WAØYNP, has been announced as the entertainment feature of a PPRAA monthly meeting. It finally looks

like the showing will take place--at the January PPRAA meeting, January 12, according to Irv Ebel, WØKWV, who is in charge of the entertainment for this meeting.

These special color slides are some "top quality" views of the last solar eclipse and showing of them has brought much favorable comment from viewers. This, therefore, should make a very special entertainment feature for the first meeting of the PPRAA in 1972.

The meeting, as usual, will be held in the Security Savings Building at East Platte and Union Boulevard and will begin at 7:30 p.m. Also, as usual, the doors will be open at 6:30 for those who want to get in some "eyeball ragchewing" with the other PPRAA members prior to the meeting.

No word had been received at press time as to what business matters might come up at this meeting, but it is certain the very active President George Kowalski, WØGCH, or other officers of the PPRAA will have something to discuss during the meeting,

There will also be the usual door prizes for the lucky ticket-holders and the new "official coffee-maker." Marty Brown, WZVYK, who so aptly demonstrated her ability in this line at the November meeting, has promised to do as fine a quality of brewing at the January meeting for the "coffee break."

The well-known "auction night" is on tap for the February meeting of the PPRAA, Wednesday, February 9, and President George has reminded everyone to start getting together those parts and gear that he (and his XYL) would like to get rid of which may well be put to use by some lucky bidder after the auction.

See all of you in the meeting room in the lower level of the Security Savings Building, Wednesday evening, Jinuary 12, to start the New Year off right!!

SET January 29, 30

The annual nationwide ARRL Simulated Emergency Test is scheduled for January 29 and 30.

The local radio amateurs participating in the simulated emergency will meet at the Springs Civil Defense Center (in the basement of the Police Department Building, East Kiowa and Weber) at 2 p. m., Saturday, the 29th,

All Club members, AREC members and interested amateurs are urged to attend.

More information on this annual test will be available at the January PPRAA meeting for those interested

Pueblo Pair Constructing Repeater For Denver-Springs-Pueblo Link

By Robert D. Shriner, WA\$UZO and Don Margin, WB\$RCX At long last the Denver/Pueblo repeater construction has started. It will be built by WB\$ECX and WA\$UZO.

This repeater will receive a 146.19 signal from Pueblo or Colorado Springs and transmit it to Denver on 146.79. It

will also receive 140.79 from Denver and transmit it to Pueblo or Colorado Springs on 146.19.

Narrow band (5 kc) deviation will be used both into and out of the repeater.

This repeater will be completely open in all respects for any legal mode of operation. No fees or dues will be asked from anyone using this repeater.

A three minute time-out timer will be used and a low level CW identification system will be installed to identify the station every three minutes during the time is is being used.

The receivers have about .2 microvolt sensitivity and the transmitters will put out about 25 watts.

Large beam antennas will be used on each side of the repeater to enable it to reach Denver and Pueblo easily.

A short squelch tail of about one to two seconds will be used to facilitate with other repeaters if so desired in the future.

Our plans at the moment are only to build, install and maintain the repeater. Anyone who so desires to utilize it in any manner may feel free to do so any time of the day or night. Monitoring facilities are available in Pueblo on a 24-hour basis.

Any further information desired can be had by writing or calling WAØWAD, Ollie Shriner, P. O. Box 969, Pueblo, Colorado 81002.

-0-0-0-0-

PPRAA Members Move Club Station, WAØVTU

With George Kowalski, WØGCH, the PPRAA president, local Emergency Coordinator and Trustee for the club station WAØVTU, located on the second floor of the American Red Cross Center, 1600 N. Cascade, "directing the operations," several members of the PPRAA spent the New Year week end moving the station from the room where (Continued on Page 3)

John Huntoon, ARRL Secretary, QST Editor, Speaks At Special Meeting Of Pueblo Ham Club

(Since it is believed that few, if any PPRAA members attended the special visit of John Huntoon of Hq. ARRL in Pueblo November 8-for two reasons, the bad weather and the fact that we did not have the exact time of the meeting in time to get it into the November Zero Beat, we are reprinting the account of visit and talk, plus a "rebuttal" of some of John's remarks by WBØBSV, from the December issue of the Pueblo Ham Club's "Grid Leak." -- Frank, WØHWH)

November & at the Voc-Tech Auditorium on the Orman Campus of Southern Colorado State College was the scene of a priviledged visit by the General Manager of the ARRL and also ARRL's secretary and Editor of QST Magazine. Approximately 36 attended the special gathering.

Huntoon was in the area for two standing committee meetings scheduled for Denver. He said "The request to visit Pueblo was made after looking over the League's booksand realizing that Pueblo had not been recently visited." He explained that all League officials attempt to bridge the gap between amateurs and the League through these visitations.

He explained that six years ago the ARRL looked in the mirror and decided that it was time to skim off the deadwood and hence, agreed to approve the license fee of \$4 and today they agree with the \$9 license fee. "We are still skimming off deadwood, i ut the League is growing."

During the question and answer period that followed his brief talk, he answered the strong query of CB'ers chance of getting part of the 220 mHz by replying that he was sorry to say that they had a 50-50 chance. He went on to say that the League hasn't filed against the proposal and that the FCC hasn't definitely recommended it, "If it comes to be, it will hurt, but won't hurt much since the advent of 2 meter FM. If you object, please write your League and it most likely could be the

(Continued on Page 7)

ZERO BEAT

Published in the Interest of the members of the Pikes Peak Radio Amateur Association Inc., Colorado Springs, Colorado

> Clarence (Frank) Craw, WDHWH, Editor Telephone 635-3373

Address all items and exchanges to 1142 Rainier Drive, Colorado Springs, Colo., 80910

Permission is granted to reprint articles or excerpts thereof providing full credit is given.



Amateur Radio News Service

Copy deadline for ZERO BEAT is last Wednesday of each month

The PPRAA meets the second Wednesday of each month in the Security Savings East Building,
East Platte at Union Boulevard, Colorado Springs

EDITORIAL

Don't 'Cross That Forbidden Boundary' Please

"Deadline -- 1. a boundary which it is forbidden to cross. 2. a time limit, as far as payment, news story, etc."

Such is the definition of this word contained in Webster's New World Dictionary. Although, in the strictest sense, the second definition is the one which applies to the submission of material for Zero Beat publication, or any publication, the first definition also is correct in the eyes of the editor of any publication. Without the enforcement of this "boundary" no publication can be put in the hands of its readers at "the appointed time."

Although this "time limit" or "boundary" has been listed in every issue of Zero Beat since we assumed the task of editor and though it has been called to the attention of members at numerous meetings, there seem to be some who choose to ignore or misinterpret it. As a result, some material submitted for publication in Zero Beat just hasn't made the time limit and has crossed the "forbidden boundary."

Two items for the November Zero Beat crossed the "forbidden boundary" time-wise--they arrived the day after the layout pages were taken to the printer. Two items for the December issue of Zero Beat crossed the same "forbidden boundary"--they also arrived the day after that issue was taken to the printer. Naturally, none of the four items made the issue for which they were intended.

Had they been items of "such immediate news value" that they warranted really "special action," an effort might have been made to pick up at least one of the pages from the printer and "remake" the layout to fit the items into the issues for which they were intended.

However, not one of the four items came within that "special action" category in any sense. Each of them could have been submitted earlier so that space could very readily have been found for these items in the very

issue in which they were intended to appear.

The "deadline" listed as the last Wednesday on the month does not mean that is the date on which they should be mailed—that is the last day in which "important" news must reach us in order to get in the issue. Material which is not of "last minute happening and importance" just doesn't meet the "deadline requirements."

Remember that once material for Zero Beat is "on hand," there is a matter of some 10 to 15 hours or more necessary in typing for line spacing, retyping in final form with each line respaced for length, lettering headlines and fitting each typed item into the 8 pages of Zero Beat so that each page is properly filled and ready for the printer.

If we are late in delivering the page layouts to the printer, there is always the chance that something else will be "tieing up the presses" and Zero Beat will not be printed in time to be picked up, folded and mailed in time to reach you when it is expected—the weekend prior to the meeting date (the time



PPRAA DIRECTORS

PRESIDENT

George Kowalski W#GCH 5320 Copper Drive 80907 596-0164

VICE PRESIDENT

Charles E. Myers WA ØZCS 1120 Yosemite Drive 80910 632-0848

SECRETARY

Irvin K. Ebel WØKWV 1224 N. Custer 80903 473-3630

TREASURER

Wayne Brown W2TPV/6 2829 Shady Drive 80907 598-7096

MEMBERS

CHAIRMAN OF THE BOARD

Pete Demario KØUDG 1300 Kingston Drive 80909 596-3633 Ed Pompea KØZPG

Ed Pompea KØZPG 2111 Trent Ave. 80909 635-7554

Bill King WØLKD 2916 N. Institute 80907 634-4751

As editor of Zero Beat we want to see that each issue is the very best we can give our readers—that every bit of interesting and important news about the PPRAA and its activities is reported for our readers. In turn, we expect those who have items for Zero Beat to submit them as early as possible to assure they are "presented in their best manner."

We feel that we are cooperating" with you in giving you the best possible in each issue of Zero Beat. How about cooperating with us, so that, in the time that we can devote to Zero Beat and still get it to you "on time" we can have the time to do a "really good job?"

Get your items for Zero Beat to us as early as possible and, if you do really want them to appear -- don't cross the "forbidden line" time-wise,

W6KZF ten years ago started the publication of the "Circle" of the Central California Radio Council. This was the first publication with whom we "exchanged" after taking over the editorship of Zero Beat in June 1966. It was the source of the 24-month series we reprinted on "Understanding Transistors."

KZF finally got tired of people not meeting deadlines and getting items to him late--the December issue announced that after ten years as editor he has told the CCRC tofind another editor to take on the "headache."

With cooperation, we enjoy putting out Zero Beat, in spite of the time we must spend on it. Don't, due to lack of cooperation, make us change our mind as W6KZF has done.

---Frank, WØHWH



OSIE'S LEPORTINGS

By Rosemarie Lewis WAØMNL

Looks like Arleen, XYL of Gene Bacon, WOCNY, is out to give the OM some competition ham-wise. attending the class given in the Civil Defense Center by Elmer Schladweiler, WAOWYX with an occasional "assist" from Gene). Arleen took her novice test and though, at press time, she hadn't yet received her ticket, she is sure she "made the grade. " Gene, who has been a ham since 1923, admits he "put a bit of pressure" on her to get her to join him in hamdom. He's now looking for a novice rig he can "beg, horrowor steal" for a short time for her to use. Says he doesn't want to buy one as she is already boning for her general class ticket and he doesn't believe she'd need a novice rig long. If anyone can belp Gene and Arleen out, see him at the meeting or call 475-2017.

- rr -

Ronald W. Skowland will have to pay higher dues in 1972. Etdon Lewis - WAØERA, recently gave Ron his general conditional exam and Ron passed with flying colors to change from an associate to a full PPRAA member. Not sure what his call is. Also understand another general license came Colorado Springs way in December but not sure who is was that got it.

-rr-

Our president, George Kowalski, WØGCH, and his family speut Christmas in Salt Lake City. George reported that it was drizzling while he was there but he ran into his worst trouble getting back to the Springs---a full-blown snowstorm. Saidattimes he could only make from two to five miles an hour pushing his car through the white stuff. Said he had an opportunity to check on several 2 meter FM repeaters during the trip and that none of them measured up in good output to the one here in Colorado Springs.

-rr-

Eldon and I also spent Christmas away from the Springs, with my brother and sister in Marion, Kansas. We were luckier than George on driving conditions. Tried to work the Pueblo repeater as we drove east, but lost it not too many miles from the "Steel City."

-rr-

During the last week of 1971 Linda Vidmar, WAØMNM, who is due to make me a grandmother the first part of the year was beginning to wonder if it might be early---perhaps early enough to be another deduction on the 1971 income tax. (We hadn't heard if she made it at the time we had to get Zero Beat to the printer ---Frank)

Station Moved

(Continued from Page 1) it had been located since March 1967.

The station was moved, but it remained in the same building--it is now located in a room one floor higher, a room which, according to George, is about five times the size of the room in which the station was formerly located.

The equipment which had been added to the station from time to time made the former location too small for all the equipment on hand for the station, so an arrangement had to be made for more space in which to operate the station.

The latest equipment to be added to that in the club station is a WH101. donated to the station by Bill Gaiser,

WBØCNC, George stated.

With this additional equipment the station will be able to operate at an even higher capacity in case of emergencies when PPRAA members have gathered at the station to handle messages such as was done during the California earthquake and other situations where the station was operated "in the public service."

We will probably have more information on the station in its new location in a future issue and undoubtedly George will have some information on this at the January 12 PPRAA meeting.

-0-0-0-0-

FOR SALE---Heathkit Mohican general coverage receiver. All solid state. \$35. Roger Lapora, KøKRG. Phone 473-6823.

-0-0-0-0-

Don't forget to show up at the January 12 meeting with your 1972 dues.

Make this a "Happy New Year" for the treasurer and the PPRAA treasury.

Mention Zero Beat To Our Advertisers

As will be noted in this issue, one of our advertisers, who has been with Zero Beat since opening the franchise branch here--Lafayette Radio Electronics--is missing in this (and future) issues.

Reason for the discontinuance of the advertising is not known—it might be for one of three reasons: (!) The store is not interested in stocking ham gear; (Z) The store is not interested in getting business from the radio amateurs in this area, or (3) The store does not feel that it has had enough business from local amateurs to warrant advertising its location or wares in Zero Beat.

If the reason for cancellation of the Lafayette as is due to reason (3), one way to point out the value of advertising in Zero Beat to this store and to the others who advertise in Zero Beat is to inform them, when you procure items or equipment from them, that "I saw your advertisement in Zero Beat."

By this slight effort on your part you will let the dealer know that his support of the PPRAA through advertising in Zero Beat is worthwhile and bringing results in that it brings PPRAA members and other Zero Beat readers to his store to increase his sales of parts and equipment.

He will then be more anxious to continue his advertising in Zero Beat and we will be able to continue to receive the "advertising revenue" necessary to continue printing Zero Beat in its present form without excessive cost to the PPRAA treasury.

-0-0-0-0-

Ham radio -- talk on and about it!



CW ELECTRONICS SALES COMPANY

"It Speaks for Itself"
SIGNAL ONE

John WAØADV Mike WAØKXR

Carey WAØECS Gary WAØKLP

John WØFU

DISTRIBUTORS OF ELECTRONIC EQUIPMENT

THE ROCKY MOUNTAIN AREA'S LEADING
SUPPLIER OF AMATEUR RADIO FOURMENT

AUTHORIZED FACTORY SERVICE

STORE HOURS

Monday-Friday: 8:30 am - 6 pm

Saturday: 8:30 am - 5:30 pm

1401 BLAKE ST., Corner of SPEER BLVD & BLAKE ST.
DENVER, COLO. 80202 PHONE 244-5523

FREE PARKING ACROSS STREET FROM STORE

President's Column

Greetings for 1972! May murphy be extra nice to you this new year.

Now is the time to look back on a very successful year for your club, The highlight, of course, was the beautiful convention in June. A week later, a fine Field Day was held in Memorial Park. The Simulated Emergency Test, Pikes Peak Marathon, Picnic, Veterans Day and Christmas dinner also come to mind not to mention repeater activities

and search and rescue missions. It busy and exciting year, 1972 promises morre

Now is also the traditional time to make resolutions. I hope yours include coming to meetings and supporting club activities. We, in turn, resolve to give you interesting meetings and some worthwhile activities. Come and see.

73. George, WØGCH

Technical Talks

By George Kowalski, WØGCH

As mentioned in my talk at the Convention, the \$100 "home computer" is not far in the future. Last month, Intel, (a large manufacturer of ICs) introduced their MCS-4 micro-computer,

It's a set of four IC packages which can do desk calculator things such as add two eight-digit numbers in 850

microseconds or made to do Amateur Radio things such as convert radioteletype to Morse code and vice-versa, recognize your call and store a message, keep your log . . well, just about anything you can program it to do. For less than \$200 in the basic configuration, unit quantity.

Gene Fleming, WØHMK Hos 'Trading Material'

Gene Fleming, WOHMK, has several issues of QST dating from 1955 that he would like to swap for issues he does not have. Also available are about 50 early radio receiving tubes such as 15, 24A, 27, 32, 34, 42, 45, 78, 80, 84, etc., CQ Magazine from July 1960 to August 1966, and ARRL Handbooks for 1943 and 1948, Would like to obtain tube tester and signal generator, or will swap for almost anything electronic. The address is 1327 Prairie Road. Phone 635-8102.

-0-0-0-0-

NOTES FROM OUR EXCHANGES

A new type of thermometer that can measure changes as minute as twothousandths of a degree has been developed by the University of Illinois scientists.

It was designed to measure in the range from minus 457, 69F to minus 459.13 F where very small temperature changes are important in cryogenic phenomena. The thermometer consists of an aluminum wire, a solenoid whose magnetic field affects the aluminum's superconductivity, and detection coils to reveal the superconducting condition of the aluminum. Its operation is based on the fact that at extremely low temperatures, certain materials lose all resistance to electricity and that this state of superconductivity can be affected by a magnetic field.

(From the "Listening Post," Orlando, Florida, via the ARNS Bulletini

-0-0-0-0-

Start getting all that unused gear ready for the February 9 auction!!

About This Issue

Readers of this issue of Zero * Beat may note the majority of material in it is reprinted from other * publications, with not too much news of PPRAA activities.

The reason for this, we guess is that PPRAA members were too * busy relaxing and celebrating the * olidays to make too much news.

Yes, we'd liked to have relaxed. * also, but we wanted to get a Zero * Beat out for you to read.

We'll try to do better with future * issues of Zero Beat, providing you * * let us know what is going on and * * when and where it happened.

---Frank, WØHWH



"This is the color I want for my husband's ham shack , . . sort of in between the color of these two threads only darker with more yellow in it."

FGG Report

By Bill Grenfell, W4GF (From "Auto Call" of the Foundation for Amateur Radio).

If you will look carefully at your amateur license on FCC Form 660, you will see under the "Conditions of Grant" on the back that the document authorize es "the person named herein" to operate "an amateur station licensed by this Commission" if a class of operator privileges is indicated, and authorized. Thus most amateurs possessing a valid Form 560 usually have, in effect, both an operator license and a station license on the same piece of paper.

Section 97.81 of the FCC rules is titled "Authorized apparatus" and it states: "An amateur station license authorizes the use under control of the licensee or all transmitting apparatus at the fixed location specified in the station license which is operated on any frequency, or frequencies allocated to the amateur service, and in addition authorizes the use, under control of the licensee, of portable and mobile transmitting apparatus operated at other locations"

Probably the most frequently asked question about the amateur rules is: "Which call sign should or can I use when visiting and using the rig at another amateur's station? Although it may not seem so, Section 97.81 provides the answer where it requires "use undercontrol of the licensee." This is referring to the station licensee. To be able to control his station, the station licensee would have to be present at the station location

It is the station licensee who is responsible to the FCC for the transmissions from the station identified by his call sign and this includes being able to shut it down promptly if some other person operating it violates the rules . Therefore, the visiting amateur may use his host's call sign only if the host

is present. If the host is away, the operation of his equipment must be identified by and under the authority of the visiting amateur's call sign and station liceuse - using portable procedures.

After the above is recited, the next question usually asked is "How do you log such an operation?" Since it is a log of station operation, the visiting amateur should log any operation under his own call sign and keep that log with the rest of his station log as required by Section 97.105 (for at least a year). Any use of the host's station by the visitor should be entered in the host's station log by the operator. If the host personally wants a record of the operation of his equipment while he is away, that is up to

(Continued on Page 7)

Novices' Notations

DIPOLE PROBLEM - - By Mike Anderson, WNØEQM

I have found that the 40 meter dipole I am using for 40 and 15 meters has the same SWR on both bands (mine is about 1:1. 9, which seems OK for me since I worked 3-land with about a 549 report) so I am happy.

You should have seen the way I cut the dipole. Most hams would have rolled in their graves or died laughing at the rigamarole I went through.

#1 I cut the No. 16 wire into two equal 33.0 foot sections and connected these directly to a panel coax connector,

#2 I found two bamboo poles, one of which I stuck in a neighbor's yard, the other I put on our fence. The one on the fence kept falling down until I used some bailing wire to secure it to the fence, hi hi! I then stretched the dipole out between the two poles and proceeded to clip away at each end of the dipole.

#3 Before I started my nail clipping sessions I set my transmitter in a chair with my SWR bridge and key on top of the transmitter. My receiver was in another chair so that I would not be the cause of a ham going CB. Finally I found a good reading—to me any reading under 1:3 is good.

#4 The real trouble came when I tried to find a place to string this "monstrosity" up. In my yard there are no angles of greater degree than about 45 degress, so now, in my back yard, is the oddest looking dipole anyone has or will ever see in his or her or its life.

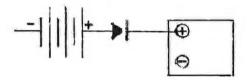
In a few days I plan to rig up a TR switch and string the dipole over the house and across. Now I ask you—have you ever heard anything come close to this? Am I or am I not a loyal ham?

Protection For A

It is noticed that it is becoming almost a universal practice to protect your solid state equipment by inserting a diode in the power supply lead as shown.

It the construction article you are working on or the new shiny piece of solid state equipment you have just purchased doesn't incorporate this feature, it would be advisable to add it promptly.

DON'T BE HALF SAFE!



DIODE INII86A or INII83A

1N1183A has a 50 volt peak reverse voltage, 40 amp average forward current and a 35 volt maximum RMS supply voltage.

1N1186A has a 200 voit peak reverse rating, 40 amp average forward current and a 140 voit RMS supply voltage.

-0-0-0-0-

A Scotsman entered a saddler's shop and ordered a single spur. "Tell me." asked the saddler, "what use is just one spur?"

"Well," replied the Scotsman. "If I get one side of the horse to go, I'm sure that the other side of the horse will just naturally have to go along with it."

The SCM Shack = = = By Clyde Penney, WANHLO

(From the Denver Radio Glub "The Round Table.")

Must Amateurs be amateurs? From some operating practices and lack of courtesy heard on the air every day, one would be inclined to say "yes." However, I don't subscribe to this point of view. I feel that Amateurs can be "professionals" in their approach to communications.

Mr. Webster defines a professional as one who makes a business of something that others do for pleasure. He further defines professionalism as the practice or methods of a professional, as distinguished from those of an amateur. In other words, in the broad sense of the word, a professional is one who attempts to bring perfection and efficiency to whatever task he undertakes.

Now the overwhelming majority of Amateurs do acquire a degree of professionalism in their operating practices. They take great pride in this professionalism, and justifiably so. However, there are still a few Amateurs who remain "amateurs" in their operating practices and this is a most deporable situation. Such Amateurs give a bad name to the entire fraternity.

So let us all, each and everyone, examine his or her operating practices. Let's renew our efforts as individuals to be courteous on the air. Lend a helping hand to newly licensed Amateurs just starting out, Encourage young and old who are interested in becoming Amateurs.

Operate a safe station. Strive for perfection in operating practices. Always place a clean, sharp, crisp signal on the air. Do all the tune-ups and loading on a dummy load. Comply with FCC rules and regulations relative to power, signal quality, identification, etc. Always listen before transmitting on any frequency.

In other words, strive always to be a "professional" Amateur.

-0-0-0-0-

Start sorting through that stuff in the "junk box" and getting it ready for the big PPRAA auction February 9.

EMERY STUDIO

EMERY STUDIO

PORTRAITS — COMMERCIAL PICTURE FRAMING

DON EMERY WO DYU

1 Block W. of Academy Blvd. between Palmer Park Blvd. & Constitution Ave.

3730 E. La Salle

Telephone 597-0026

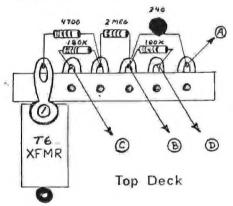
FMing GONSET

By Irvin J. Gordon. WZMPT

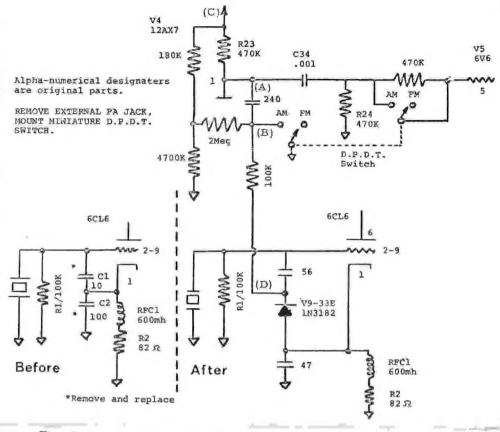
(For those of you who haven't yet joined the throng going FM, but still have ideas in that direction and may be the possessor of a Gonset, or can find one available, the following instructions on how to accomplish this with a few additions and changes to change this piece of equipment over for FM use is reprinted, with thanks, from RPT Magazine --- Editor)

Easy does it! Ever thought it would be nice to FM your old communicator? I wouldn't venture a guess as to how many of these ubiquitous gooney boxes are floating around. Drooling? Read on and do it the easy way.

Prepare a 5 point terminal strip as diagrammed. On rear top of transmitter chassis, fasten, using the mounting screw of transformer T6 (output). Bring the five leads through the left side grommet hole.



Remove the external PA jack, tape lead end. Mount and wire a miniature DPDT switch with one rotor to ground and the other rotor to pin 5 of V5 (6V6). Note both FM sides of switch are floating. The other stator connectors "AM" side are connected to junction point of 2 meg, 100K resistors and 240 pf capacitor, which replaces original CI, 10 pf. Also note that CZ, 100 pf, is now replaced by a . 47 pf.

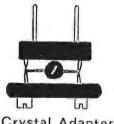


For the varicap I utilized a Pacific Semiconductor Vp-33E (33 pf), since I had one. Style IN3182 and others should also be effective. Watch the polarity of the varicap.

Lift the 470K resistor from pin 5 (grid of 6V6) and install another 470K resistor to pin 5 and lifted end of resistor R24. Connect two leads across the installed resistor and run to topside terminal strip. Slope detection is used for copying FM signals.

Since there is no provision for rubbering installed crystals to exact frequency, you can either solder a padder across the crystal or make an adaptor having a built-in capicator. I fabricated a holder by taking apart a FT-243 crystal, sawing most of it off to expose

the internal wires. Solder a new crystal socket to leads. Across leads solder the padder.



Crystal Adapter

Perhaps it's better this way. It's your choice. Of course if you buy a crystal "right on," don't bother. The gimmick holder is only applicable for crystals that are some what high in frequency. It is not a panacea, You can only warp so much.

Place "Switch-To-FM." now GO! -0-0-0-0-

On "People," a little girl wrote---People are composed of girls and boys. Boys are no good at all until they grow up and get married. Men who don't get married are no goodeither. Boys are an awful bother. They want everything except soap ---My mom is a woman and my dad is a man. A woman is a grown-up girl with children. My dad is such a nice man that I think he must have been a girl when he was a boy. "

Ham Radio Promotion Schemes - Be Careful!

(From "Auto Call" of the Foundation For Amateur Radio)

A couple of times recently the idea of using amateur radio stations in the lobbies of theaters has been suggested when the film included some mention of ham radio.

At first glance this sounds like it might be a good chance for a good public relations program, but there are a couple of angles to be considered. First of all, our legal counsel cautions that this may be construes as using amateur radio for commercial purposes ---directly promoting the film. other is that in both cases mentioned,

the theme of the films turned out to be something we really wouldn't want to promote. The first one was quite derogatory toward one of the armed services. The latest one, in my opinion, is just plain "anti-establishment." The crooks are the "good guys" and the pol ice are stupid incompetents. Ham radio comes in only for a very fleeting glimpse.

Before jumping on the band wagon to promote anything through the use of amateur radio, make certain you see the product in its entirety and consider all the ramifications. Public relations gimmicks can backfire awfully easily.

Huntoon Speaks, WBØBSV Questions Answers, Lack Of Action By ARRL

(Continued from Page 1)

next repeater band. "

Huntoon was asked about a raise in the FCC license fees due to a substantial financial loss; he didn't think the raise would be eminent.

When asked about the existing situation of the FCC recalling conditional tickets for re-examination, he stated that they had to do something as it was known to the FCC that many tickets were obtained fraudulently and that they were not calling in all conditionals or techs, just a sampling. He also stated that this was nothing new, that they had been doing this for seven or eight years at least.

ONE MAN'S OPINION

By Dr. Morris Levinson, WBØBSV

(Note--In reprinting the following "rebuttal" of some of Huntoon's talk and answers to questions, which appeared in the same issue of "Grid Leak," we realize we may be printing something with which some of our readers may disagree. In fact we are reminded of one time when we printed a "rebuttal" of some Zero Beat items from another publication and found ourselves "severely chided," to say the least.

(If a reader or readers "disagree with the disagreer"--please don't jump on the editor personally--send in your ideas on this and we'll see that it gets printed in Zero Beat and passed on to Pueblo to pass on to the writer of the following. ---Frank, WØHWH)

After Huntoon's lecture, he opened the floor for questions and discussion and our local hams, in my opinion, really put Huntoon through the good old fashioned wringer.

Some of the questions asked were as follows:

Why QST didn't carry more articles pertaining to the subject of FM and FM repeaters.

Why didn't ARRL print manuals concerning the FM mode of transmission and repeaters?

Why is QST so difficult to read and understand?

Why is the FCC calling in at this time technicians and general conditionals for re-examination?

What are the chances of the GBers getting the 220 band?

Mr. Huntoon stated that in the future there will be more articles concerning FM and FM repeaters. These and an ARRL manual on FM are in the process of being prepared and should be ready in the latter part of 1972 or the early part of 1973, QST will be more readable in the future.

Last year he felt the chances of the CBers getting the 220 band were 10 to 1 against fheir getting it, but as of today he felt that they stood a better than 50-50 chance of getting this band.

His answer about the techs and conditionals kind of gave me a sour taste in my mouth and left me with the feeling that the ARRL as an organization is rather inept and really isn't in too much of a hurry to see the amateur ranks grow.

He stated that in his opinion many conditional licenses were obtained fraudently and if a ham is really interested in ham radio, recall by the FCC should hold no fear for the operator. At this point, if it hadn't been for Chuck Chambers, RØYFR, holding me, I may have fallen either to or through the floor.

Most of the hams at the meeting disagreed with the above mentioned answer for a number of reasons.

I, for one, disagree with his answer and the FCG actions for the following reasons: the average tech conditional, because of the bands alloted to him, has very little opportunity to use CW. The average general conditional usually uses phone, as is the practice amongst most hams. And besides, when an individual gets into ham radio and starts operating, he usually forgets all the fine points of theory that he learned when he was studying for his examination,

Most licensed professions that I am acquainted with never require their licensees to ever have to take another exam to prove their proficiency, even if the individual has been licensed under a "grandfather clause."

Now I realize that ham radio is not a profession, but I feel that it is a licensed hobby and consequently I feel that the law as it applies to licensing anything should apply. And the law on that point is that it is illegal and a clear example of DOUBLE JEOPARDY when as individual has to be subjected to trial

for the same offense or to examination in a profession or hobby for which he already has been issued a license.

In private conversation with Mr. Huntoon, I told him that I felt that ARR-L doesn't seem to go too far out of its way battling for hams when various legal situations arise. He told me that to a great extent I was correct because the ARRL lacks financial funds to get involved in legal and other situations that may arise all over the country.

Unions defend their union members! Professional Associations defend their members!

Why shouldn't ARRL defend its ham members?

-0-0-Q-Ö-

FCC Report

(Continued from Page 4)
him. It is not required of him by the
rules.

The next question usually asked is, "How does this apply to a club station?" The answer is, it doesn't. By its very nature, the club station is intended for operation by a number of persons who are members of the club and who are at least qualified as operators. It is up to the club trustee to permit operation only by members who will be properly responsible to him for their operation.

-0-0-0-0-

There's a good reason that there were many fewer wrecks in the horse and buggy days. Then the driver didn't have to depend entirely on his own intelligence—he got an "assist" from the "power up front." Don't try to tell us that the man behind the wheel is smarter than the horse in front of the cart!

WALKER ELECTRONICS

9 EAST VERMIJO ST COLORADO SPRINGS COLO. 80903

PHONE 636-1661

WHOLESALE ELECTRONICS

TUBES ANTENNAS

TEST EQUIPMENT

AUTHORIZED

SYLVANIA

DISTRIBUTOR



AUTHORIZED GENERAL ELECTRIC DISTRIBUTOR

D&M ELECTRONIC SUPPLY

717 N. Weber Street Colorado Springs, Colo. 80902

Phone 633-4668

Wholesale Radio, TV, Parts, Tubes, Batteries Industrial Electronics, Test Equipment

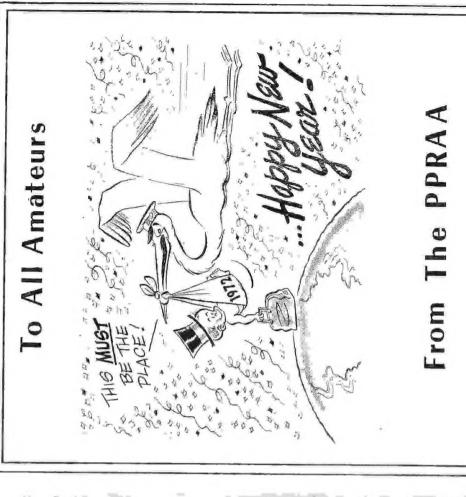


AUTHORIZED

DISTRIBUTOR

ZERO BEAT EDITOR PIKES PEAK RADIO AMATEUR ASSN., Inc. 1142 Rainier Drive Colorado Springs, Colorado 80910

RADIO AMATEUR ASSOL



FIRST CLASS MAIL